AF1615-1 and La Chipper Nitrogen and Plant Spacing Trial, 2001

General Comments:
AF1615-1 was developed by Al Reeves at the University of Maine and has been evaluated in the Hastings REC variety evaluation program for the last three years. It has generally produced more cwt/A than the standard round white variety, La Chipper, in small plot trials. The skin color and quality characteristics of AF1615-1 make it a potential new round white variety adapted for production in North Florida. A trial was conducted this season to evaluate the interaction of fertilizer and spacing for optimal production of AF1615-1.

Planting Site:	Hastings REC, Yelvington Farm
Planting Date:	February 23, 2001
Harvest Date:	June 4, 2001
Season Length:	100 days
Replications:	4
Plot Size:	20 ft
Row Spacing:	6, 8, or 10 inches
Fertilizer:	N, as noted in Table; P, 30 lb/A; K, 150 lb/A
Varieties:	La Chipper and AF1615-1

There was no significant difference between clones in total or marketable yield in the clone main plots. Potatoes spaced at a six and eight inch in-row spacing produced more total and marketable potatoes than potatoes spaced at ten inch in-row spacing. There were no significant differences in the nitrogen rate main effects or the clone x spacing x nitrogen rate interactions. Further work is planned for the 2001 season to evaluate La Chipper and AF1615-1 production practices.

Florida Table 31. AF1615-1 and La Chipper Nitrogen and Plant Spacing Trial. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of AF1615-1 and La Chipper grown at different nitrogen rates and plant spacing at Hastings, FL. - 2001.

Main Effects	Total Yield (cwt/A)	Marketable Yield [1] (cwt/A)	Size Distribution by Class (%)[2] 1	2	3	4	5	Size Distribution (%) 2 to 4	3 to 4	Specific Gravity
Clone										
La Chipper	310	276	7.9	61.2	27.7	3.1	0.1	92.1	30.8	1.068
AF1615-1	324	278	5.4	51.0	39.2	4.4	0.0	94.6	43.6	1.065
LSD [3]	*ns*	*ns*	*1.9*	*4.7*	*4.3*	*ns*	*ns*	*1.8*	*5.4*	*0.002*
P Value	*0.8818*	*0.3897*	*0.0135*	*0.0005*	*0.0001*	*0.3114*	*0.1104*	*0.0098*	*0.0002*	*0.0009*
Spacing (inches)										
6	328	283	8.4	58.8	29.1	3.7	0.0	91.6	32.8	1.066
8	324	285	6.6	58.1	32.6	2.5	0.1	93.3	35.2	1.066
10	299	263	4.9	51.4	38.8	4.9	0.1	95.1	43.6	1.068
LSD [3]	*11*	*12*	*1.1*	*3.3*	*3.0*	*ns*	*ns*	*1.1*	*3.6*	*0.001*
P Value	*0.0001*	*0.0009*	*0.0001*	*0.0001*	*0.0001*	*0.1053*	*0.6509*	*0.0001*	*0.0001*	*0.0507*
Nitrogen Rate (lb/A)										
125	327	283	6.8	60.8	29.7	2.5	0.20	93.0	32.2	1.066
175	326	287	5.5	56.7	33.7	4.1	0.00	94.5	37.7	1.067
225	322	283	6.3	53.3	35.0	5.5	0.00	93.7	40.4	1.066
275	293	254	7.8	53.7	35.6	2.9	0.00	92.2	38.5	1.067
LSD [3]	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*
P Value	*0.6164*	*0.6122*	*0.4337*	*0.5003*	*0.6780*	*0.0895*	*0.0895*	*0.4057*	*0.6419*	*0.7879*

[1] - Marketable Yield: size classes 2 to 4

[2] - Size classes: 1 = <1 7/8", 2 = 1 7/8 to 2.5", 3 = 2.5 to 3.25", 4 = 3.25 to 4", 5 = >4"

[3] - Means separated within columns by the *LSD* means separation test.

Florida Table 32. AF1615-1 and La Chipper Nitrogen and Plant Spacing Trial. Yield, marketable yield, percentage of yield by grade, size distribution and specific gravity of AF1615-1 and La Chipper grown at different nitrogen rates and plant spacing at Hastings, FL. - 2001.

Clone	Nitrogen Rate (lb) /A	Spacing (in)	Total Yield (cwt/A)	Marketable Yield [1] (cwt/A)	Size Distribution by Class (%) [2] 1	2	3	4	5	Size Distribution (%) 2 to 4	3 to 4	Specific Gravity
Season–101 days												
La Chipper	125	6	348	308	9	67	22	2	0	91	24	1.065
	125	8	337	302	7	66	26	1	1	92	26	1.066
	125	10	330	291	6	55	33	5	1	93	38	1.069
AF1615-1	125	6	344	288	8	66	24	2	0	92	27	1.066
	125	8	309	263	7	62	30	1	0	93	31	1.066
	125	10	293	248	4	47	44	5	0	96	49	1.065
La Chipper	175	6	342	308	7	57	30	6	0	93	36	1.070
	175	8	357	320	5	60	31	3	0	95	34	1.069
	175	10	320	286	4	58	31	6	0	96	37	1.070
AF1615-1	175	6	322	272	6	58	33	3	0	94	36	1.066
	175	8	320	280	6	54	37	3	0	94	40	1.064
	175	10	292	256	4	49	40	7	0	96	47	1.065
La Chipper	225	6	321	278	9	64	24	3	0	91	27	1.065
	225	8	287	259	8	63	28	2	0	92	30	1.069
	225	10	282	259	5	58	34	3	0	95	36	1.070
AF1615-1	225	6	351	301	6	50	41	3	0	94	43	1.064
	225	8	370	325	5	47	42	6	0	95	48	1.064
	225	10	320	275	3	38	43	16	0	97	59	1.066
La Chipper	275	6	273	234	12	58	22	9	0	88	30	1.069
	275	8	272	237	9	64	25	2	0	91	27	1.069
	275	10	250	226	7	57	36	0	0	93	36	1.069
AF1615-1	275	6	322	274	7	48	40	5	0	93	45	1.065
	275	8	336	292	4	48	46	2	0	96	48	1.064
	275	10	304	263	4	40	56	0	0	96	56	1.066

Planted on Feb. 23, 2001, fertilizer rate was as per plan, plus 30 lbs. phosphorus/A and 150 lbs. potassium/A, harvested on June 4, 2001.

[1] - Marketable Yield: size classes 2 to 4

[2] - Size classes: 1 = <1 7/8", 2 = 1 7/8 to 2.5", 3 = 2.5 to 3.25", 4 = 3.25 to 4", 5 = >4"